

REMARKS/ARGUMENTS

Applicant responds herein to the Office Action dated June 15, 2006.

Claims 21-26, 28, 29 and 34-40 are stated to be unpatentable over Kaneko (6,009,890), in view of Sugimoto (2002/0051644) and Ettinger (6,079,693). Claim 27 is stated to be obvious over Kaneko, in view of Sugimoto and Ettinger, and further in view of Bonora (6,663,148). Claim 30 is stated to be unpatentable over Kaneko, in view of Sugimoto and Ettinger, and further in view of Johnsgard (6,403,925). Lastly, claims 31-33 are stated to be unpatentable over Kaneko, in view of Sugimoto and Ettinger, and in view of Johnsgard, in further view of Kim (6,866,745). Reconsideration is requested in view of the following remarks.

Preliminarily, the applicant has made minor changes in independent claims 21 and 36 which are supported in the specification at page 32, lines 19-20 and page 34, line 5. These claim amendments do not raise new issues after the Final Rejection.

With respect to independent claim 21, that claim includes, *inter alia*, an “indexer mechanism to directly load and unload a substrate into and out of a carrier set”. The Office Action’s reliance on Kaneko showing this element is believed to be misplaced. The “carrier lifters 8” of Kaneko comprises a mechanism that delivers the carrier itself (see column 9, lines 15-18). This mechanism is not the indexer mechanism claimed and presented in independent claim 21. In fact, the “transport section 2” of Kaneko does not correspond to the claimed indexer section.

The “wafer unloading arm 14” (see column 10, line 1) and the “wafer loading arm 16” (see column 10, line 21) of Kaneko correspond to an indexer mechanism, and the “interface section 4” corresponds to an indexer section. Thus, there is only one shutter 103 between the indexer section 4 and the process chamber 51 (see Fig. 25). Accordingly, Kaneko fails to disclose a plurality of light-blocking sections that are disposed between an indexer section and a process chamber, and are respectively capable of blocking light passing into the same process chamber.

Furthermore, in Kaneko, it is necessary to open shutters 101 and 102 in order to load and unload a substrate. As a result, light passing into the indexer section 4 during loading and unloading a substrate is blocked by only one shutter 103, and it is highly possible that light will enter into the process chamber 51.

In contrast, in claim 21, a plurality of second light-blocking sections are provided between the indexer section and the process chamber. Thus, even during the loading and unloading of a substrate,

it is unnecessary to open any of the plurality of second light-blocking sections, and light passing into the processing chamber is blocked without fail. This is another ground by which claim 21 distinguishes over the prior art of record.

Insofar as claims 22-35 depend from claim 21, they include its limitation and impose further limitations thereon which places them even further apart from the prior art. Hence, these dependent claims are also patentable in their own right.

Turning to independent claim 36, it is noted, as discussed above, that there is only one shutter 103 between the indexer section 4 and the process chamber 51 in Kaneko. Therefore, Kaneko fails to disclose providing a plurality of shutters for opening and closing each of the plurality of gate sections that are formed in the transport for the substrate, which path extends from the indexer section to the process chamber.

Furthermore, in Kaneko, it is necessary to open shutters 101 and 102 to load and unload a substrate. As a result, light passing into the indexer section 4 during loading and unloading of a substrate, is blocked by only one shutter 103, which makes it much more likely that light will enter the process chamber 51.

In contrast, in accordance with claim 36, there are a plurality of second shutters located between the indexer section and the process chamber. Thus, even when loading and unloading a substrate, it is unnecessary to open any of the plurality of second shutters, and the light is blocked in a fail safe manner from passing into the process chamber. Accordingly, claim 36 is clearly directed to patentable subject matter. Insofar as claims 37-40 relate back to claim 36, they are similarly patentable for incorporating the features of claim 36, in addition to their own recitation of various combinations of features and elements.

Accordingly, the applicant respectfully submits that all of the claims in the application are patentable over the prior art of record and issuance of the application is earnestly solicited.

Respectfully submitted,

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